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Site Visit at Proteco

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File

In order to determine the compliance status of Proteco after interim status termination, a site visit was conducted on 10/31/91 by myself and Clifford Ng of the Hazardous Waste Facilities Branch. This site visit consisted of a visual site inspection, photographing areas of concern, discussions with facility personnel (Rene Rodriquez, Compliance Manager), and document reviews.

Container Storage Area

° The drum storage area is arranged in a U-shape configuration and stores nonhazardous waste as well as hazardous waste. It has a corrugated roof. The floor is "plain" soil and there is a small dike system constructed of soil around the storage area. The dike soil is loosely compacted. (For example, stepping on the "soil" dike would destroy its integrity.) There is no discernible "slope" to the floor, so if there was a release, one could not see it unless it was from the aisle drum. See photos # 1, 2, 3, 5, 7, 8, 13, & 14.

° Based on Rene, there were approximately 900 drums of hazardous waste and nonhazardous waste stored in the container storage area. These drums are mostly constructed of metal and plastic. Based on the records, Proteco has ceased accepting hazardous waste as of 5/1/90. See photos # 4, 6, 9, 10, 11, & 12.

As we were walking through the aisle space between stacks of drum, there is a noticeable odor from certain section of the drum storage area (this was also noticed in the 7/31/91 site visit). However, it was difficult to find the source of the odor or find visual evidence of a release. (It would be especially difficult to detect any release from the inner row drums.)

Based on the observations, corrosion and bulging was apparent on some of the drums. The chemical/physical contents in some of the drums might have been effected by the warm temperature, causing the drums to bulge. In addition, some drums were on the verge of tipping over due to broken wood pallets. See photos # 13 & 14. The "leaning" drums are a health and safety hazard-- they could easily fall and knock down the adjacent drum(s) causing a release of the contents to the unlined floor or injury to personnel.

The labels on the drums were visible but some of the writing on the labels have faded and is difficult to read. See photos # 9 & 10.

° The storage area does not have an impermeable base (this violation has been cited previously by EPA and EQB and has been included in our previous enforcement actions). See photos # 1, 2,

3, 5, 13, & 14.

° Dike system to prevent run-on or run-off control is inadequate. See photos # 1, 2, & 3.

Oil Lagoon

As indicated in the Part A and Part B applications, the existing oil lagoon has an area of 16,000 square feet and a total capacity of 5,925 cubic yards. See photos # 15, 16, 17, & 18. Proteco lost interim status for this unit on 11/8/85. This unit handled mainly waste oil, oil sludges, and ignitables. Some of the waste types handled were ignitable (D001), non-halogenated solvents (F005), ethyl acetate (U122), methanol (U154), and toluene (U220). During the Nov. 14-23, 1985 inspection, the records indicated that 132 lbs. of potassium cyanide (P098) was placed into oil lagoon on 10/11/85.

As indicated by Proteco, Safety Kleen has been collecting samples from this lagoon for the purpose of negotiating a possible agreement with Safety Kleen to remove the wastes, using the waste as a fuel for the cement kilns. Proteco, as of 10/31/91, has not yet removed and properly disposed of the hazardous waste from the oil lagoon and contaminated media associated with this lagoon.

Non-hazardous Waste Activities

Proteco accepts solid waste for its non-hazardous waste landfills from many diverse manufacturing operations and/or institutions located in Puerto Rico. These landfills are operating under a permit issued by Puerto Rico Environmental Quality Board. See photos # 19, 20, 21, 22, 23, 24, 31, 32, & 33. There were heavy equipments (bull-dozer, backhoe, trucks) in operation.

At the time of the site visit, chicken processing wet sludge from Aibonito and wastewater treatment sludge were stored/placed at a unlined rectangular lagoon or "ditch" 30 ft. X 200 ft. with a depth of 3 ft., located in the non-hazardous waste landfill unit. A backhoe was used in picking up the wet sludge and mixing with the clayey soils. This stabilized sludge was then placed in the landfills. See photos # 20, 21, 22, 23, 24, 25, 26, 27, & 28. We noticed that there were oily substances or a "sheen" on the rocks that come in contact with the waste. The waste most likely contains organic solvent wastes. See photos # 27, 28, 29, 30. Rene Rodriquez says the waste is not a TC waste (toxicity characteristic waste). Based on the information in the incoming waste logbook, the oily substances could be from the following sources:

Clear Ambient Service - oily water
Latas de Alumin Reynolds - sludge oil separation
Crown Cork - oil waste
Carib Hydroblasting - oil sludge
Prepa - fuel oil

MSD sheet and lab data provided by generators indicated there were no TC wastes in the waste stream. However, no confirmatory testing was conducted by Proteco due to lack of resources. In addition, it is our understanding that this "ditch" also serves as a stormwater pond for run-on/run-off control for the non-hazardous waste landfills.

Area Near Unit # 17

As we went along the road to Unit # 17 (the inactive and capped neutralization impoundment), the road was very "loose", with numerous "channels" carved into it (most likely caused by soil erosion or displacement) which made it difficult to walk on. See photos # 37, 38, 39, & 40. There is an embankment along the southern and eastern sides of the capped impoundment. We noticed "streamers" carved onto the embankment--most likely caused by soil erosion during precipitation. Precipitation is most likely to be accumulated in this disposal area. We did not see any trench system installed to divert collected precipitation. See photos # 41, 42, 43, & 44.

Rainwater Lagoon

The rainwater basin was used as a holding basin for supernatant water collected in the oil lagoon. Looking down at the inactive rainwater lagoon, we noticed a discoloration of soil at the bottom of the lagoon. This discoloration could be caused by the supernatant water collected from the oil lagoon. See photos # 45 & 46.

Conclusions and Recommendations

Recognizing Proteco's current financial status, it is concluded that the most imminent concern would be to remove and properly dispose of all hazardous waste from the drum storage area instead of the oil lagoon at this time. The reasons are as follow:

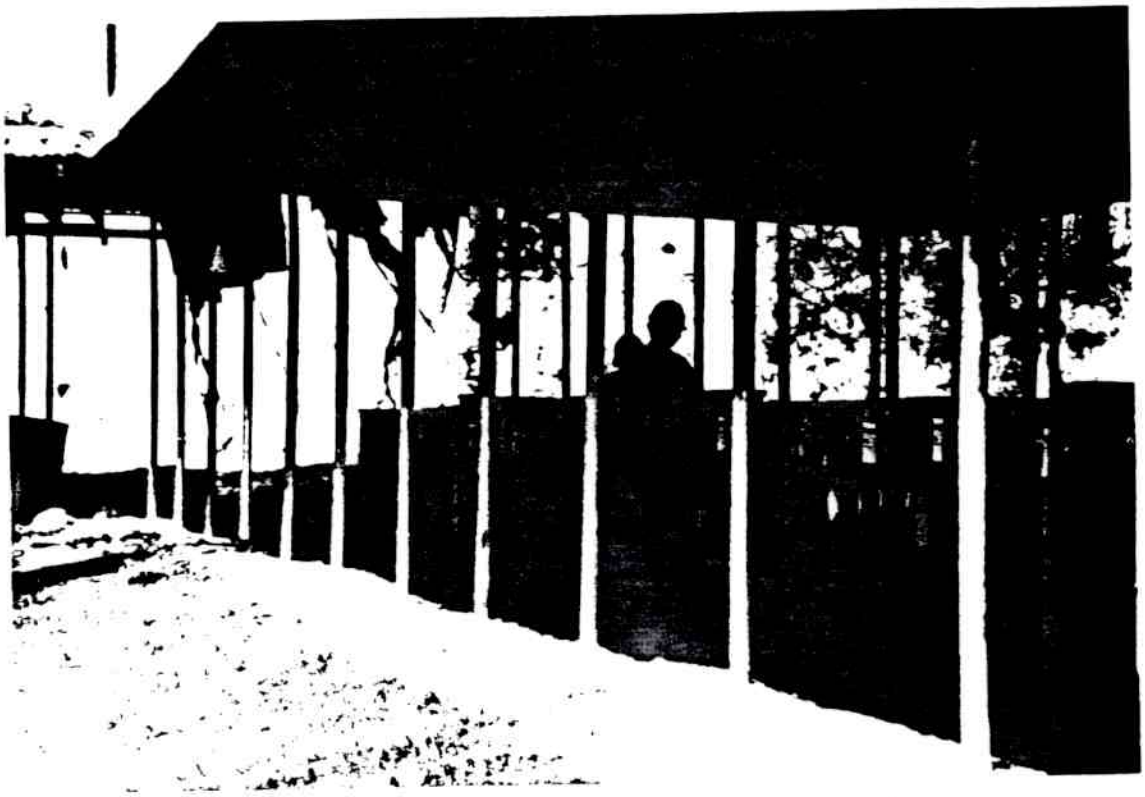
1) With respect to the oil lagoon, sampling data indicated that there has been a release of hazardous waste from the oil lagoon into the environmental media. It is our understanding that the earth beneath the oil lagoon is composed of low permeability clayey soil and does not provide a pathway to potable water. Historically, the prime use of ground water in the Tallaboa basin, where Proteco facility is located, has been for agriculture and domestic (i.e. household and commercial) supplies. Fresh water is needed for the irrigation of sugar cane and for fodder, fruit and vegetable fields. The irrigation water comes from a series of dams and diversion ditches used to exploit surface water supplies in the valley and from agricultural supply wells in the valley alluvial aquifer. The 1950's witnessed a significant change in water use in the Tallaboa basin. Commonwealth Oil Refining Corporation and Union Carbide Caribe established refining and chemical manufacturing plants near the mouth of the Tallaboa Bay, and other industries established facilities in the same area. The industries

required substantial amounts of fresh water for operation. Although it appeared that there would be a major conflict between industry and agriculture for water supplies in the Tallaboa basin, world-wide economic conditions forestalled a crisis. The petrochemical industry in the Tallaboa Bay area has been largely shut down, and, with the exception of the power generating station, there is little industrial demand for water. The agricultural economy, based primarily on sugar cane, has also suffered as a result of low sugar prices and the shift towards sugar beets as the primary source of sugar; therefore, agriculture demand for water in the basin has also significantly decreased. The three major towns in the basin, Penuelas, Seboruco, and Tallaboa, are on public water. The public water supply for the three towns as well as part of the water supply for the City of Ponce, comes from surface water at Lago Garzas. Water is tunnelled from Lago Garzas to the Tallaboa basin for use in industrial facilities and for domestic supplies. There are essentially no residents within an one mile radius of the facility. The nearest residents are located over one mile to the west in Seboruco. It is possible that groundwater is being used for domestic supplies in this area. Until a comprehensive groundwater and hydrogeological studies are completed at the facility, it is very difficult to determine the possible chemical releases to the groudwater away from this site. Therefore, the oil lagoon is not currently posing an imminent hazard.

2) With respect to the drum storage area, corrosion and bulginess appeared in some of the drums; an odor was noticed from certain sections of the drum storage area during our site visit; and the drum storage area is not maintained in a responsible manner. It is recommended that at the minimum all the drums in a poor condition should be removed and properly disposed, because it might endanger workers nearby (appro. 300 yards) at the non-hazardous waste units and the personnel inspecting the drum storage area.

3) With respect to the mixture of chicken processing sludge and the oily substances found in the ditch located in the non-hazardous waste landfill unit, it is recommended that a samples should be collected and analyzed by ESD during the upcoming multi-media inspections in late January 1992.

CONTAINER STORAGE AREA



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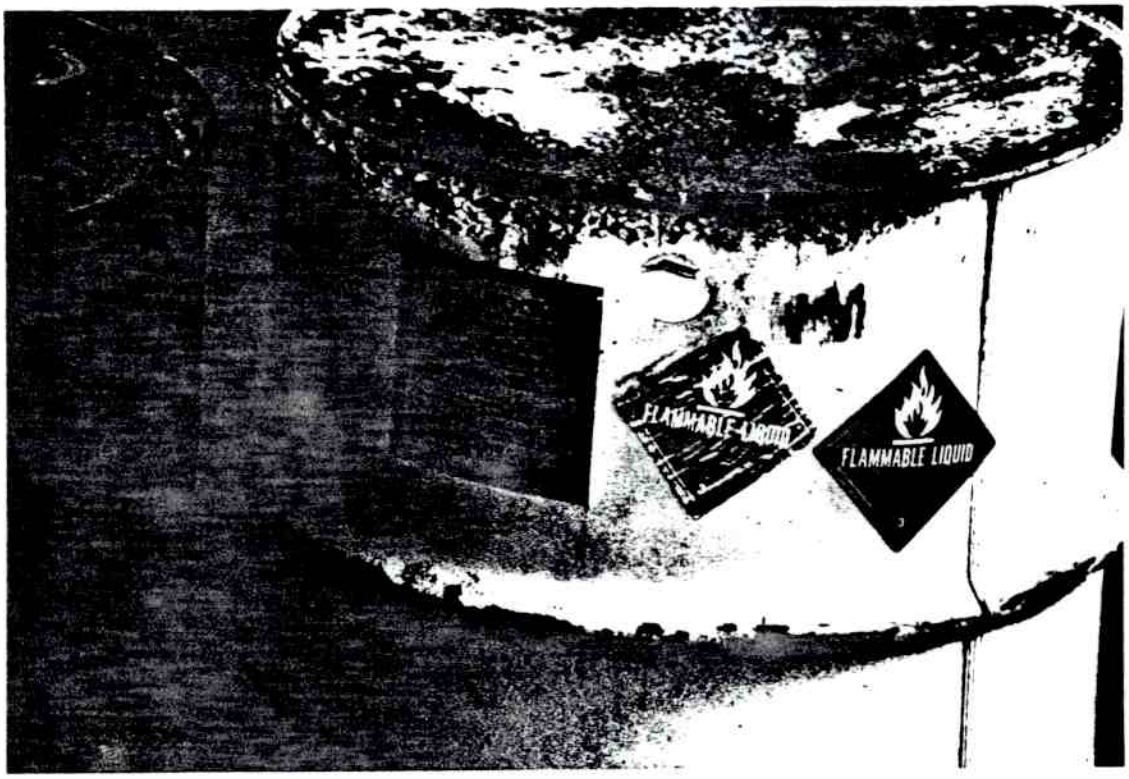

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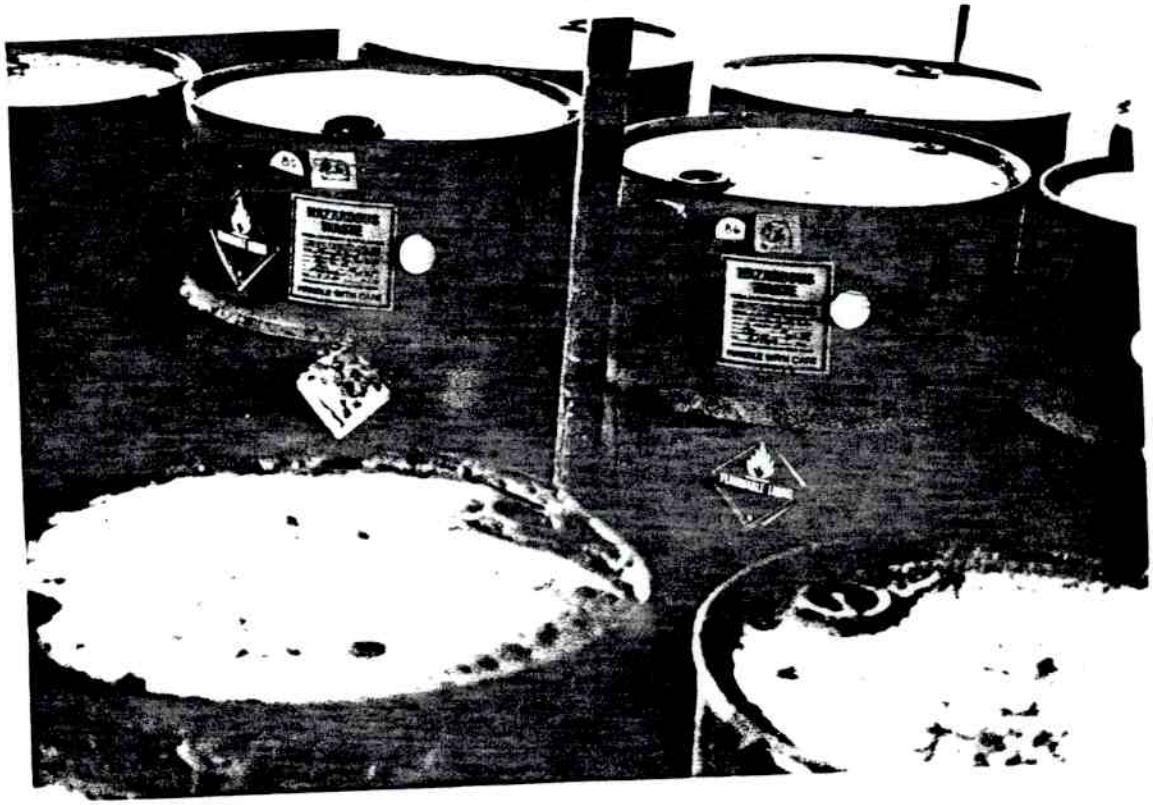

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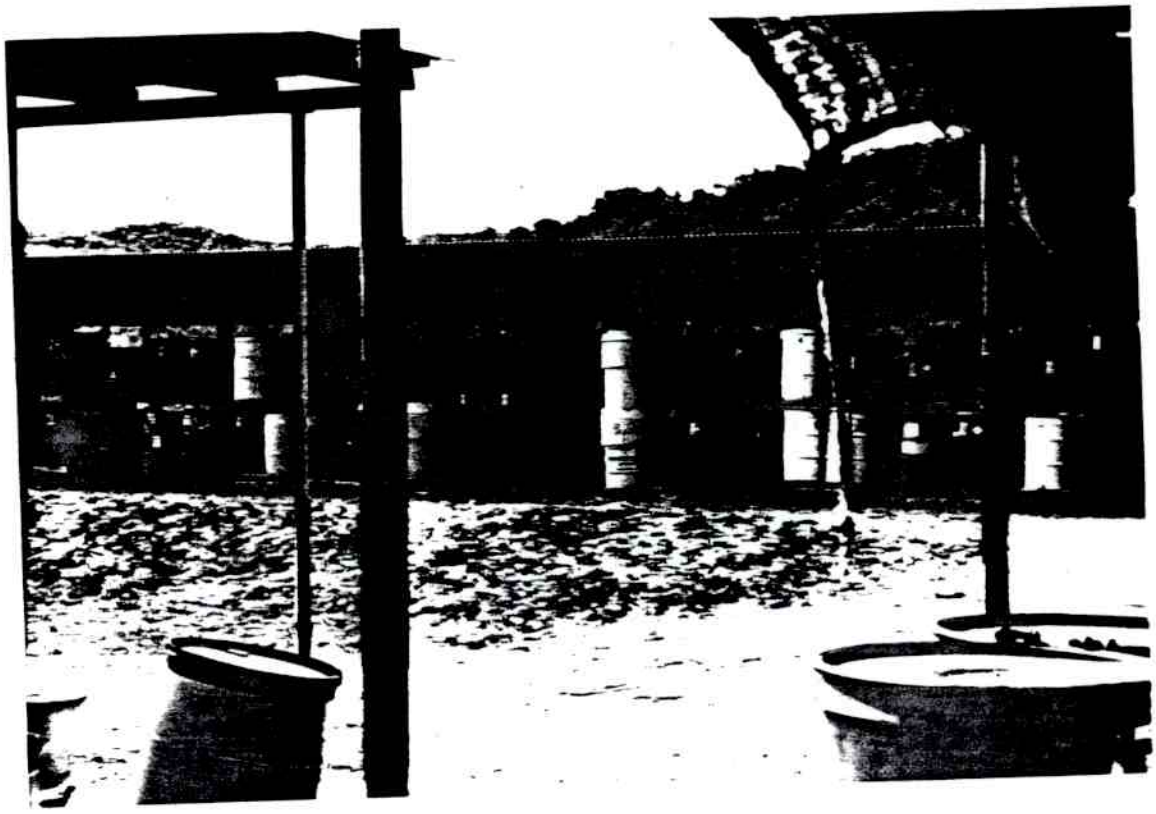

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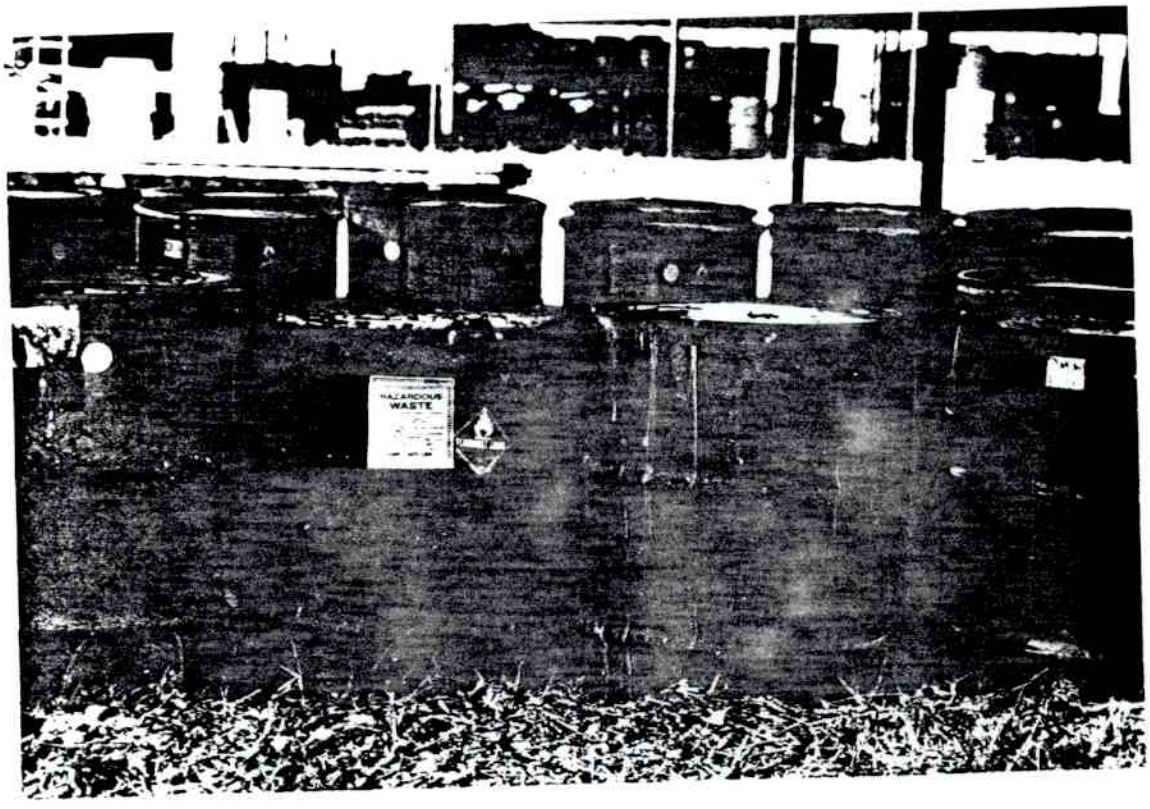

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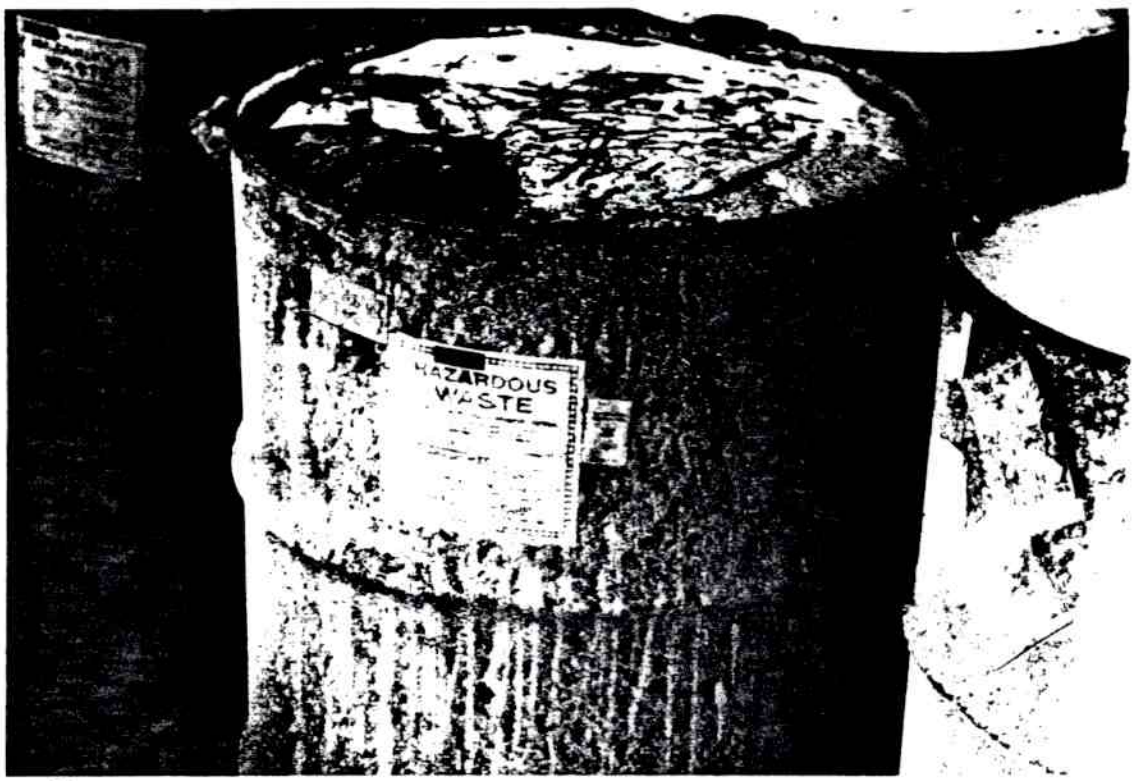

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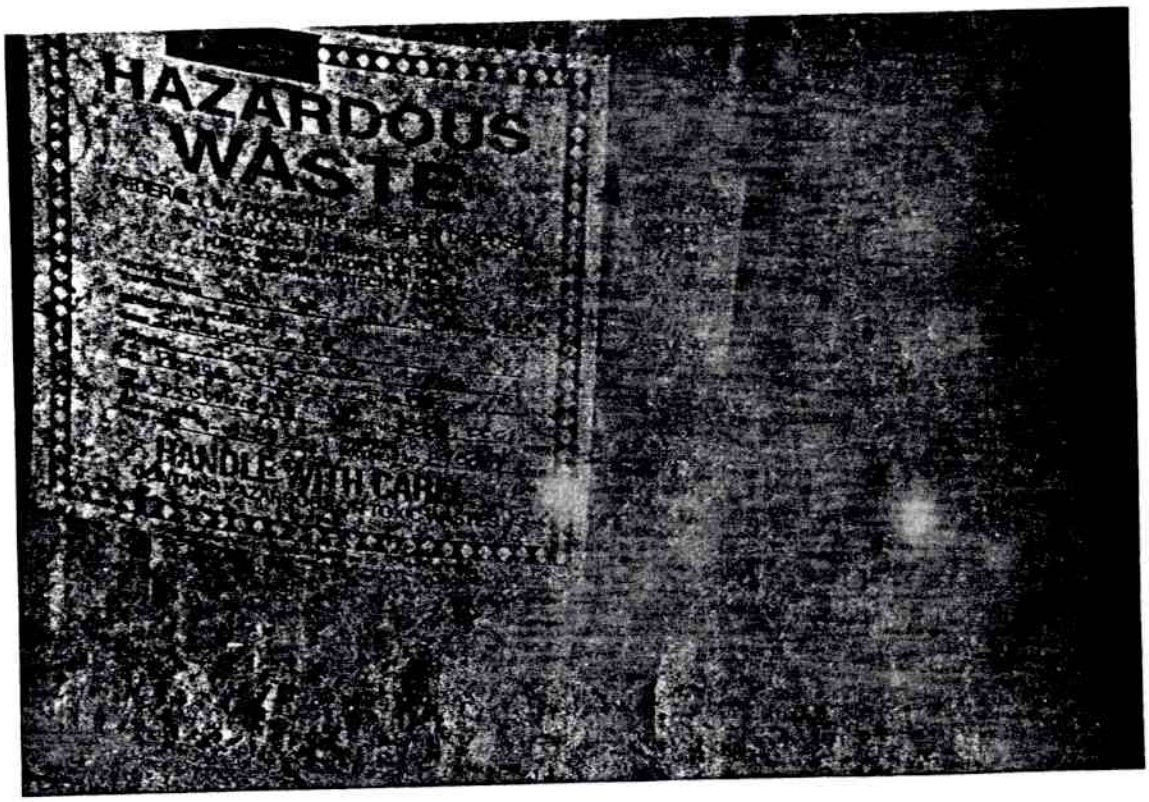

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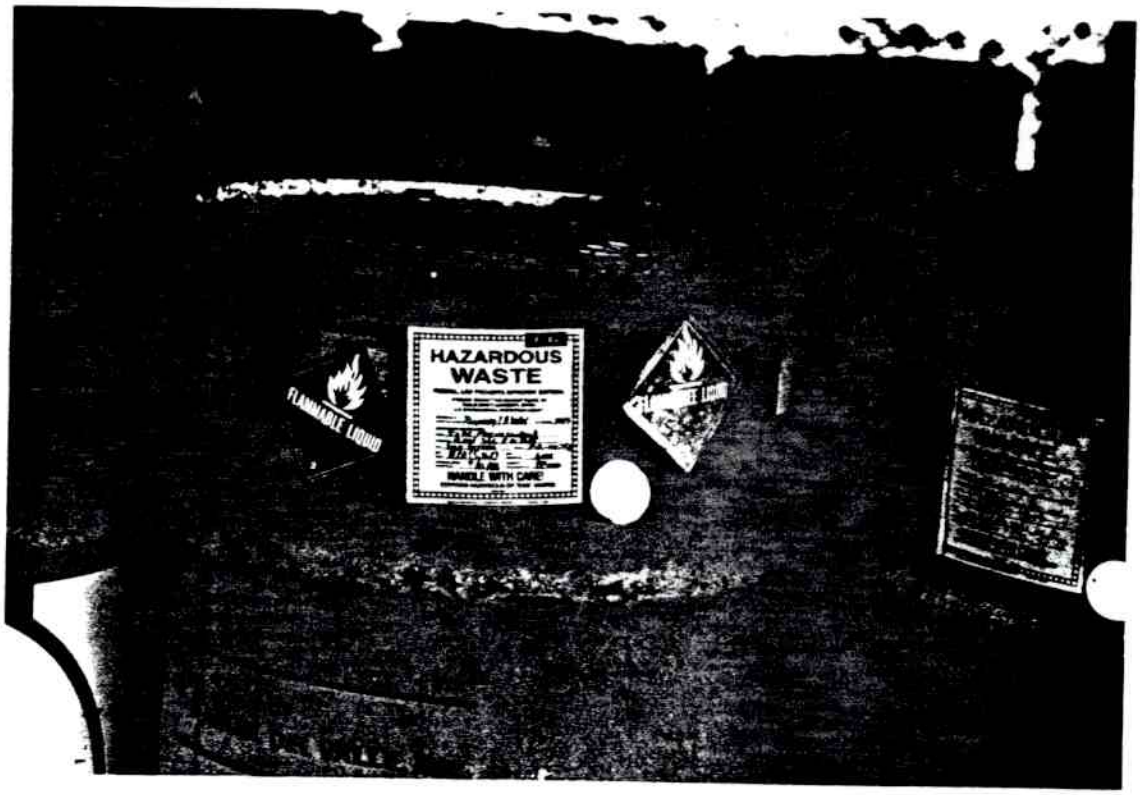

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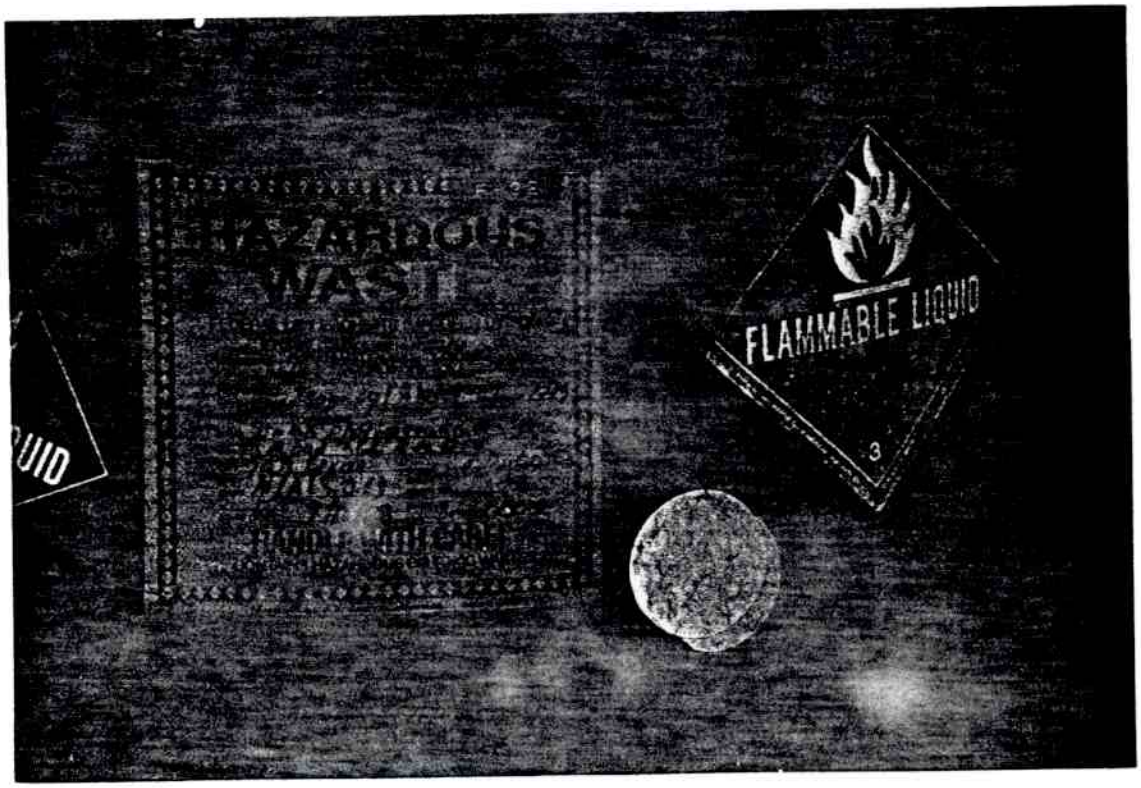

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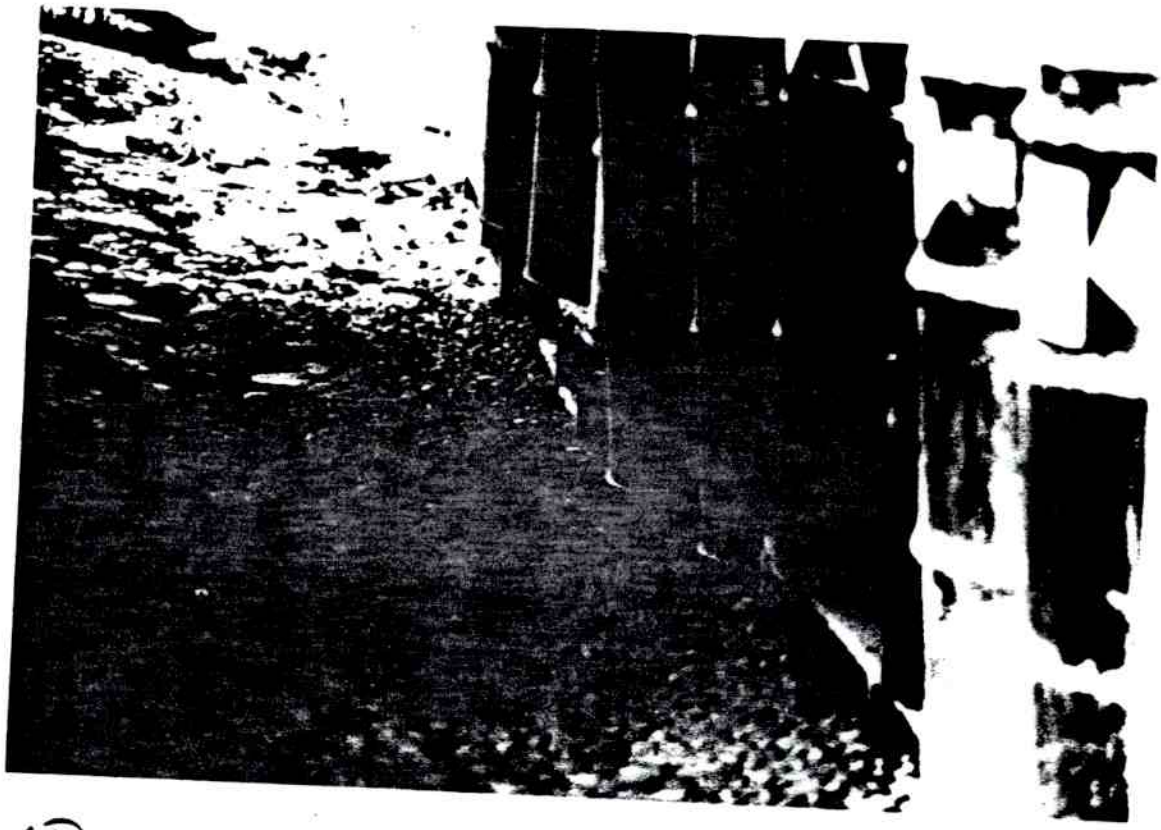

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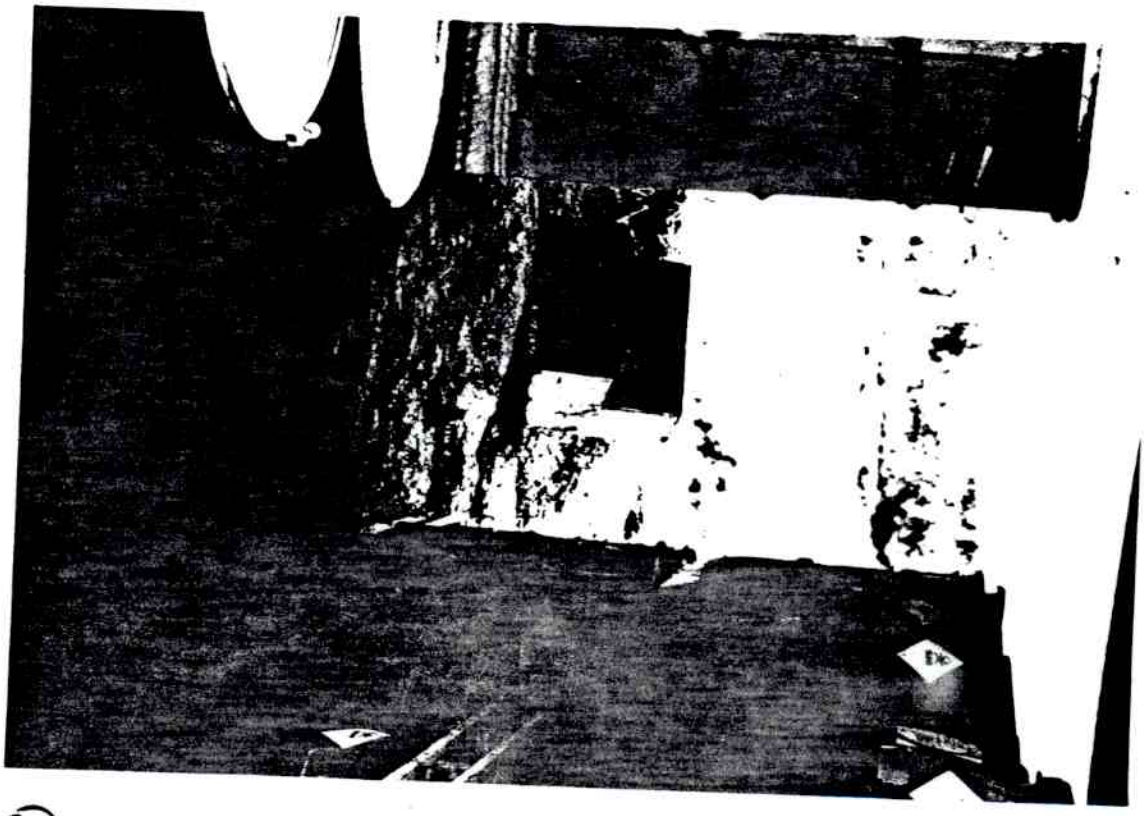

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0.1 Lagoon

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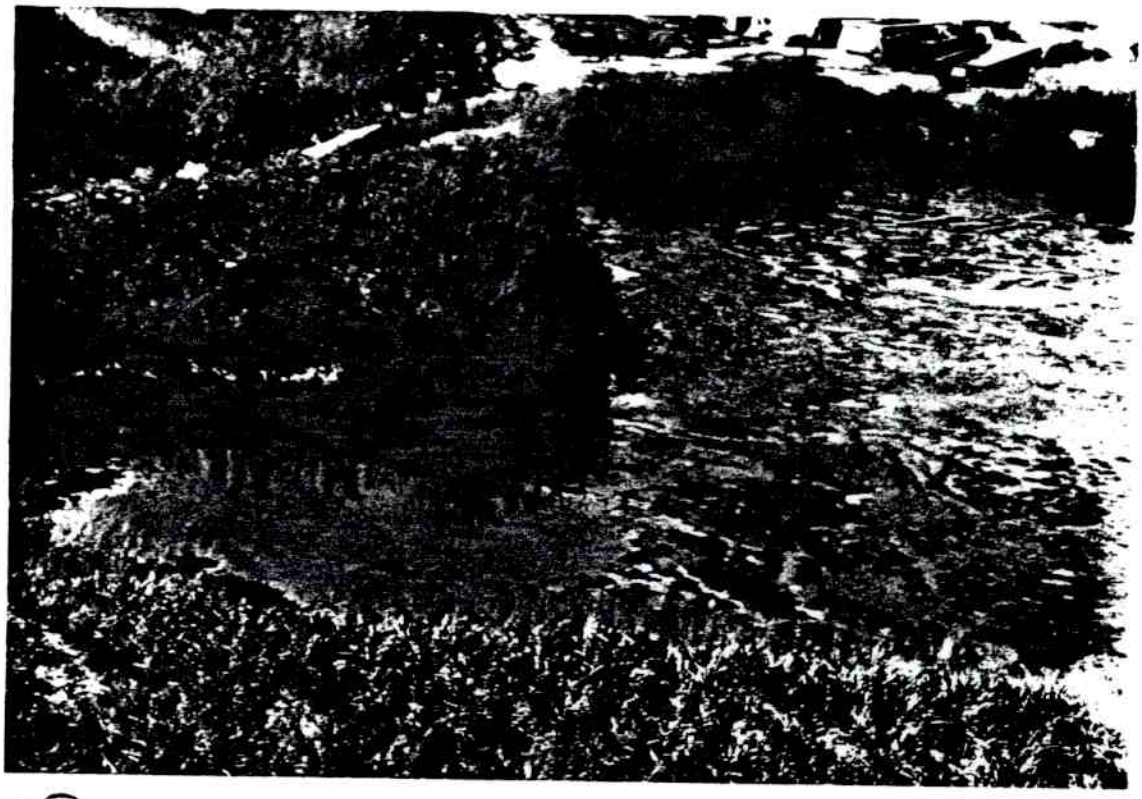

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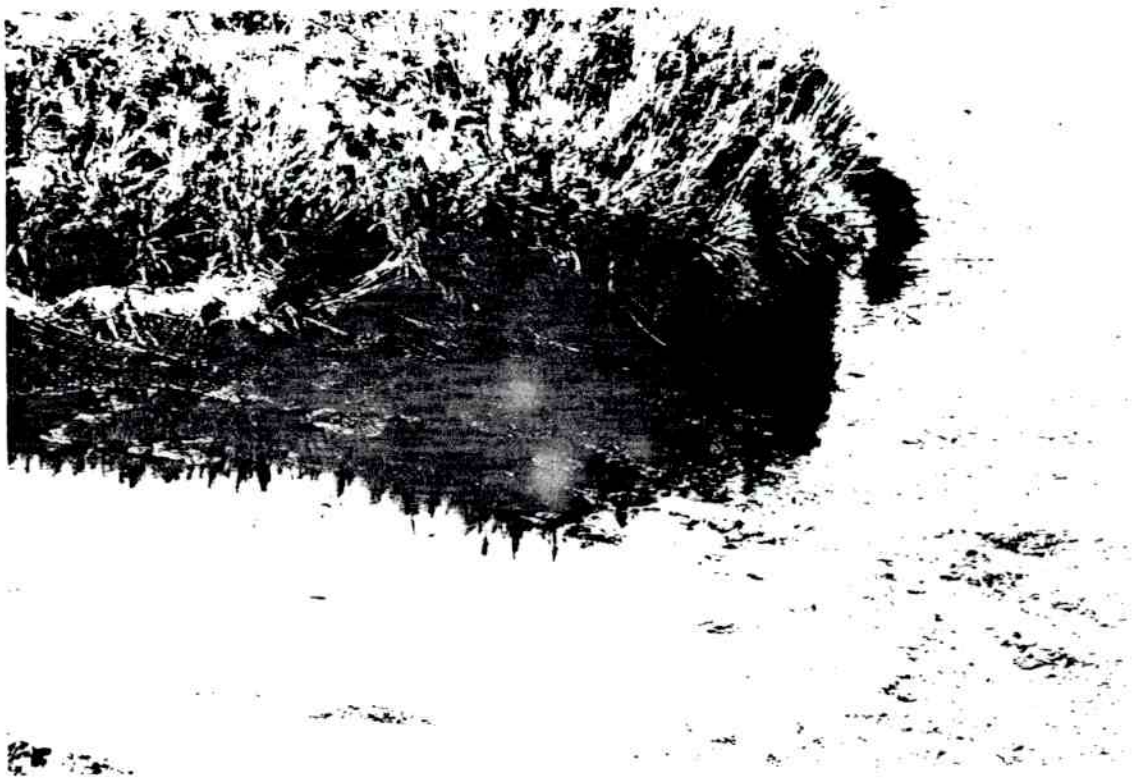

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Non-hazardous Waste Activities

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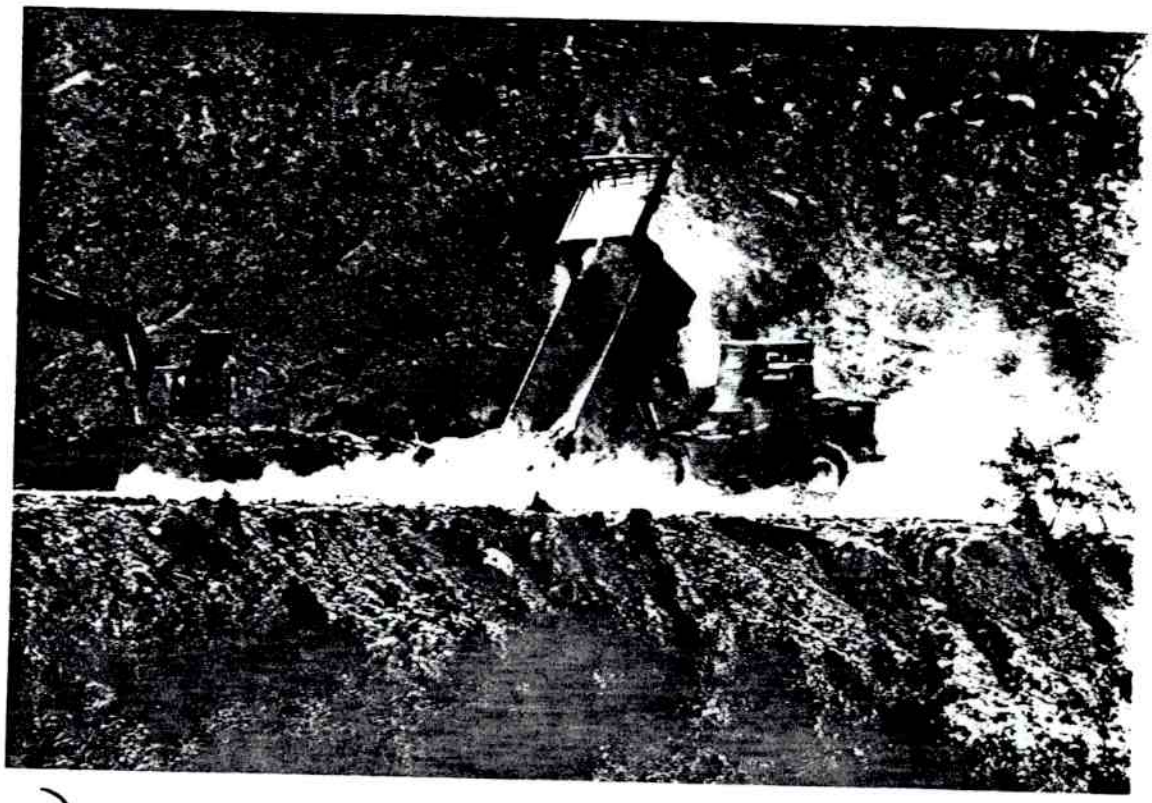

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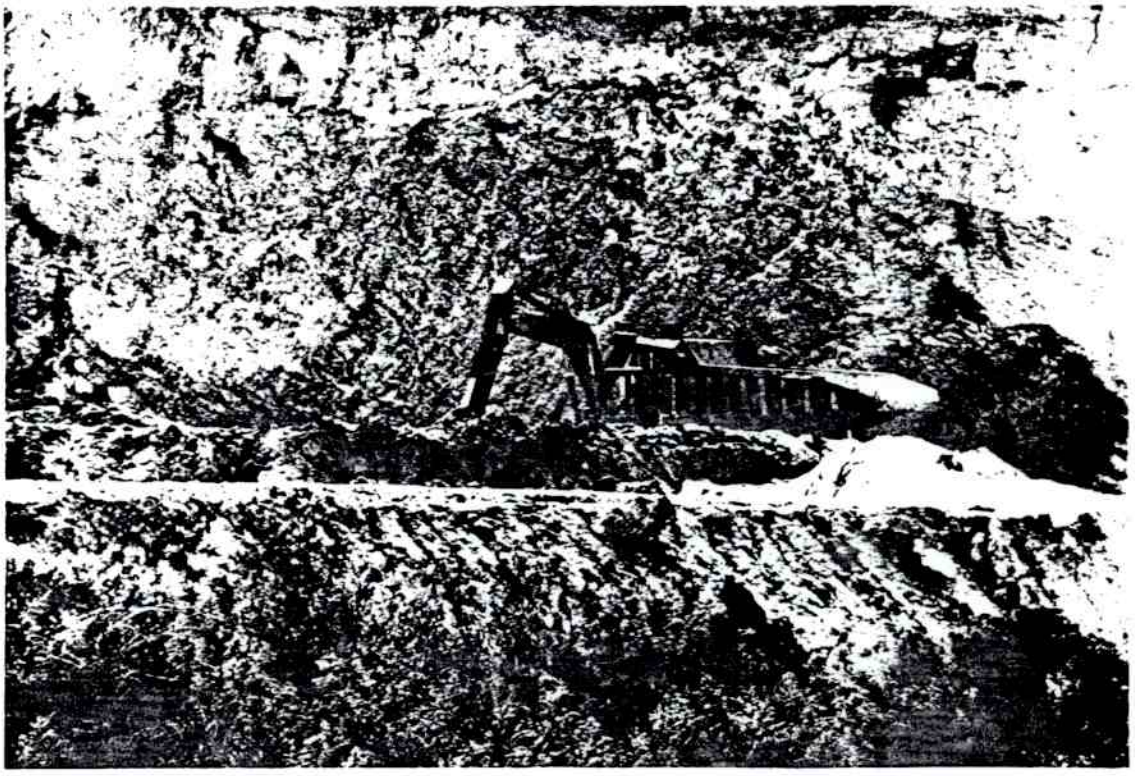

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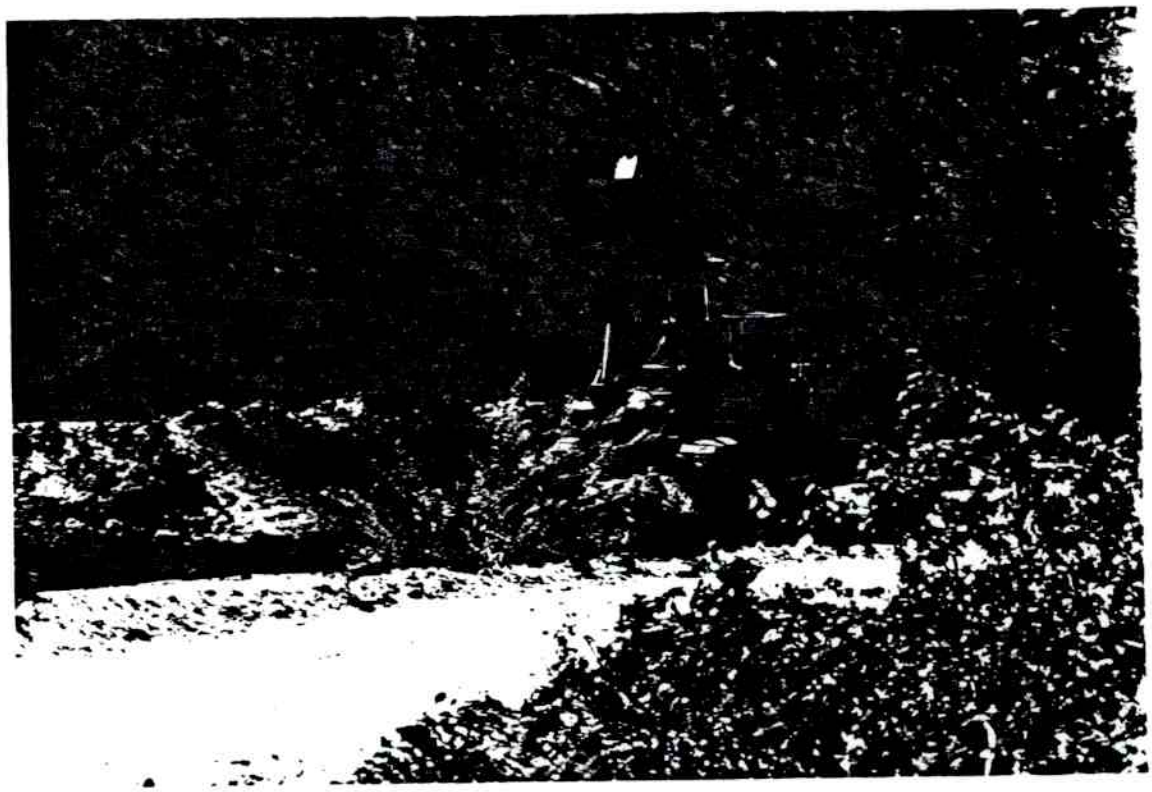

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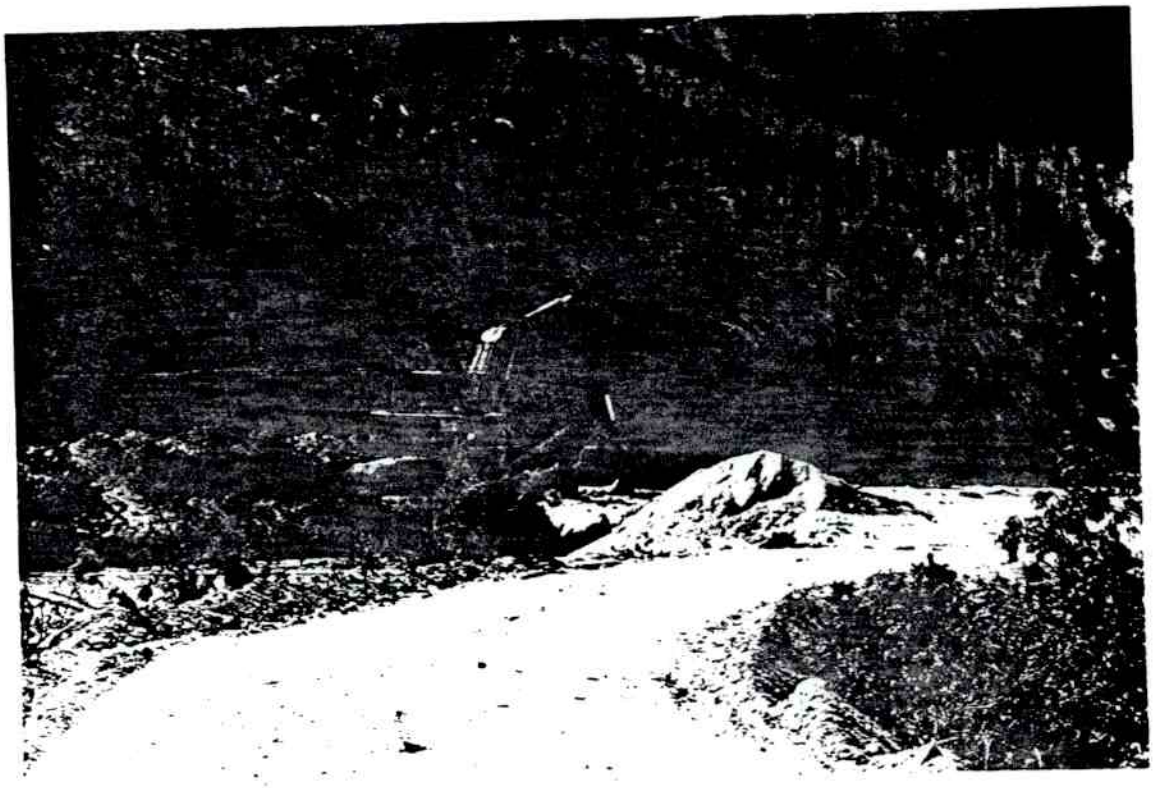

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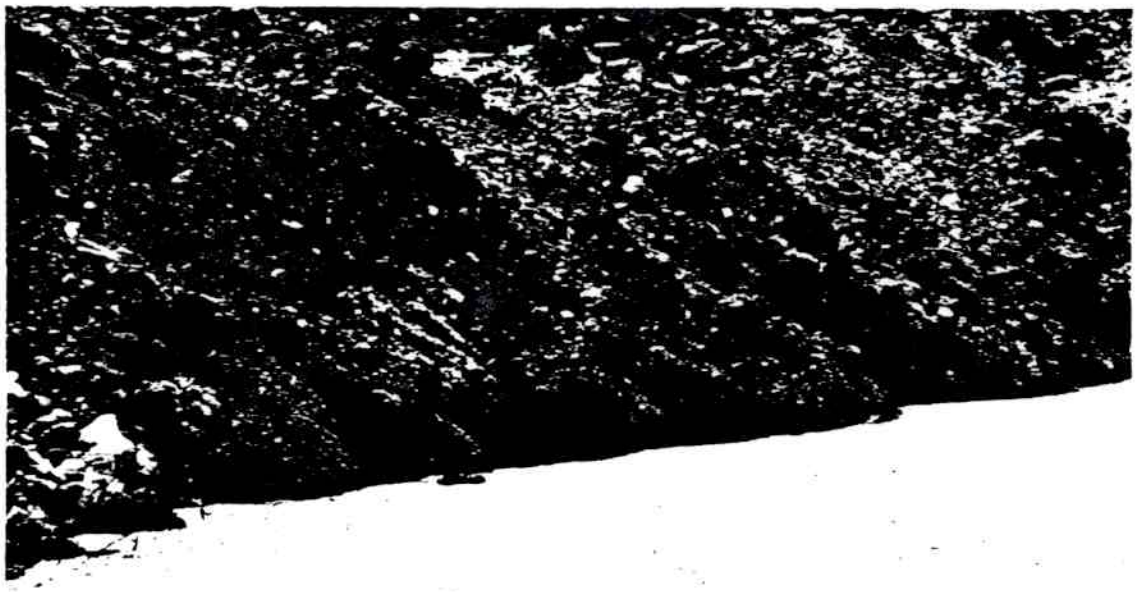

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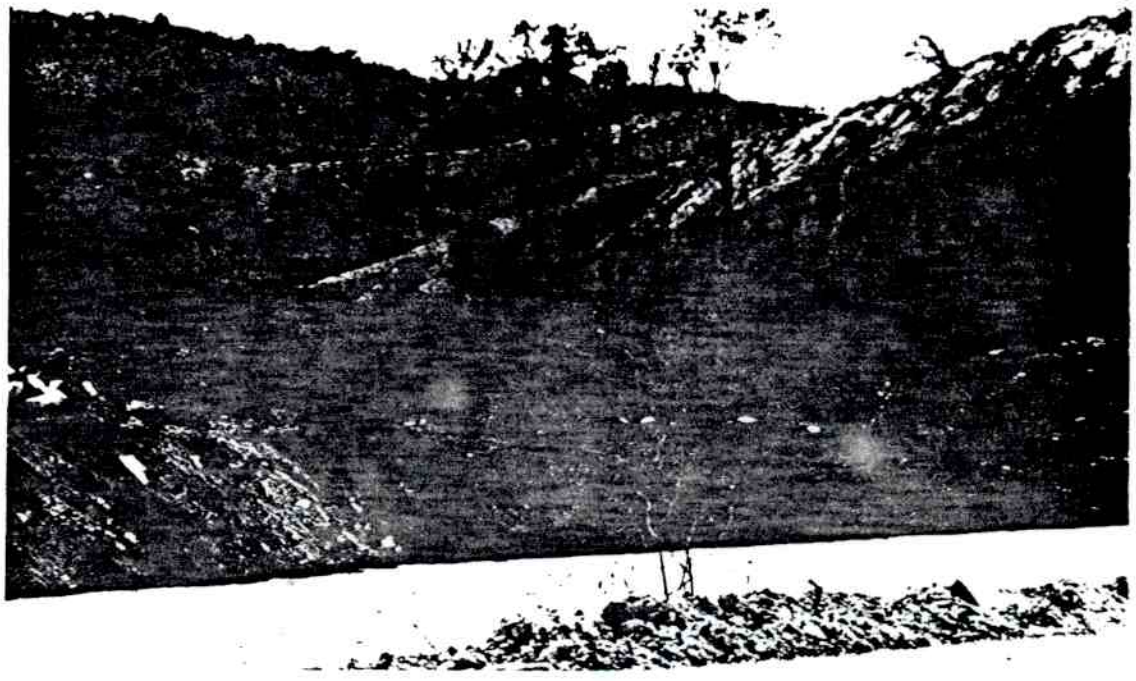

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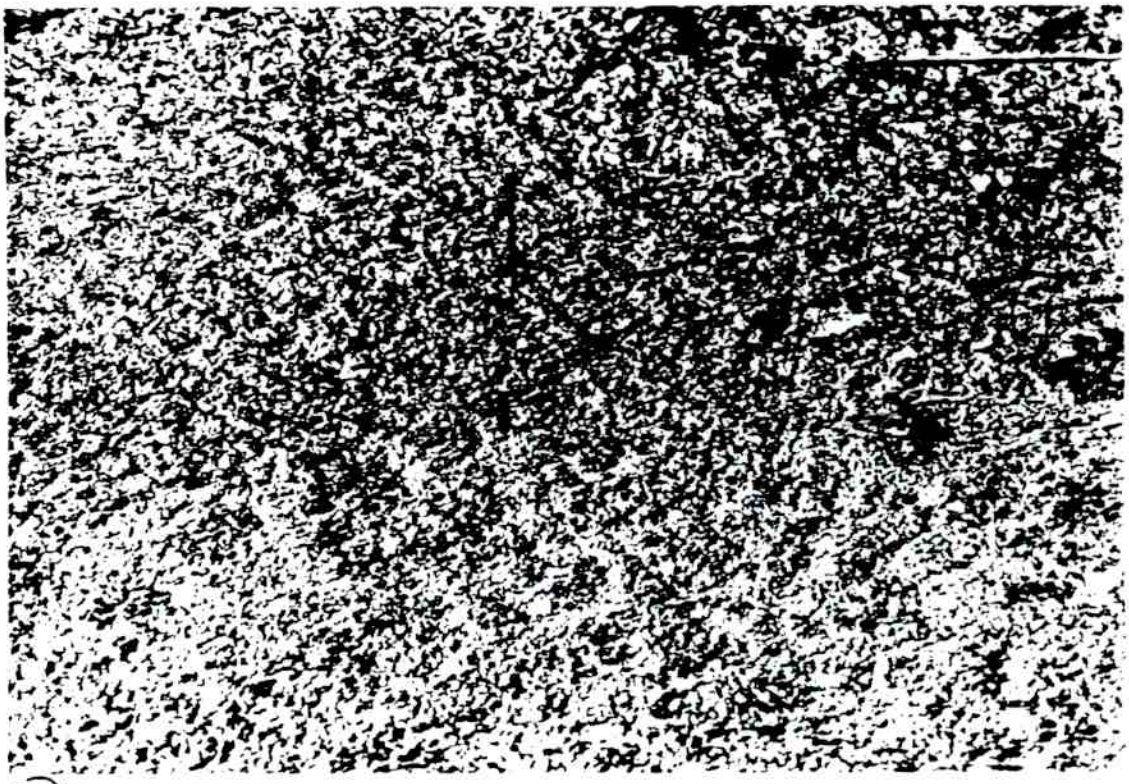

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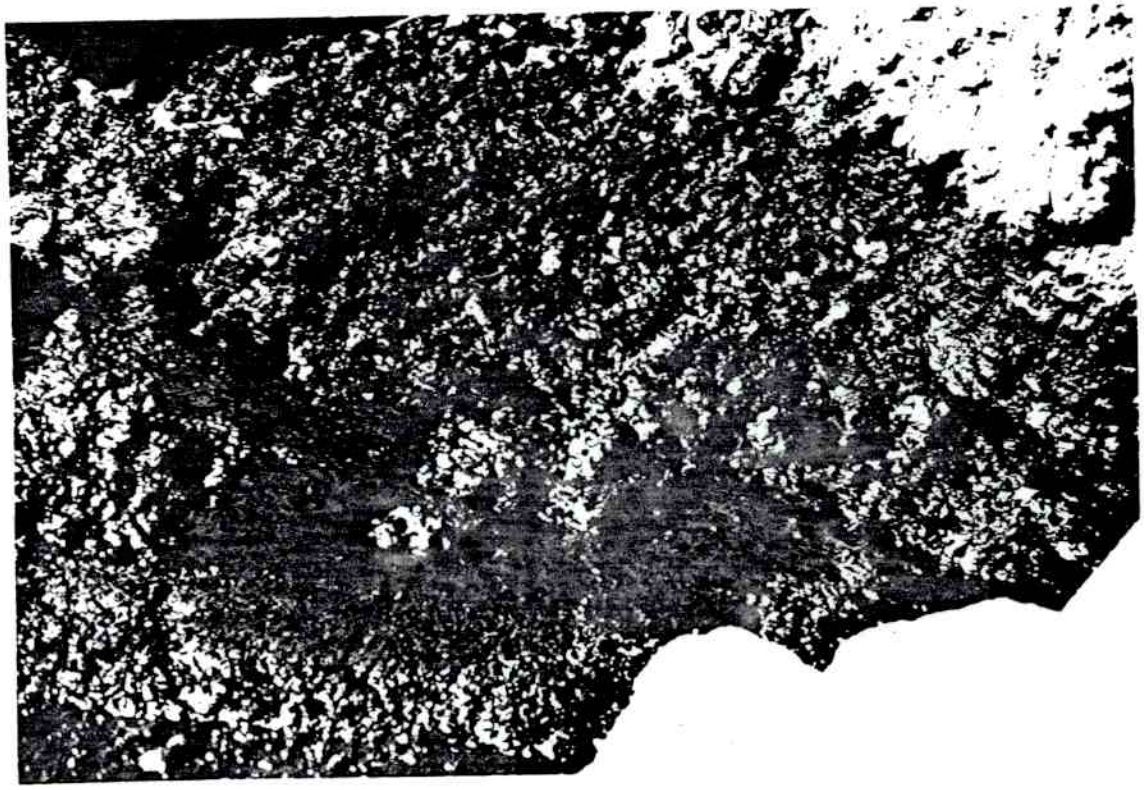

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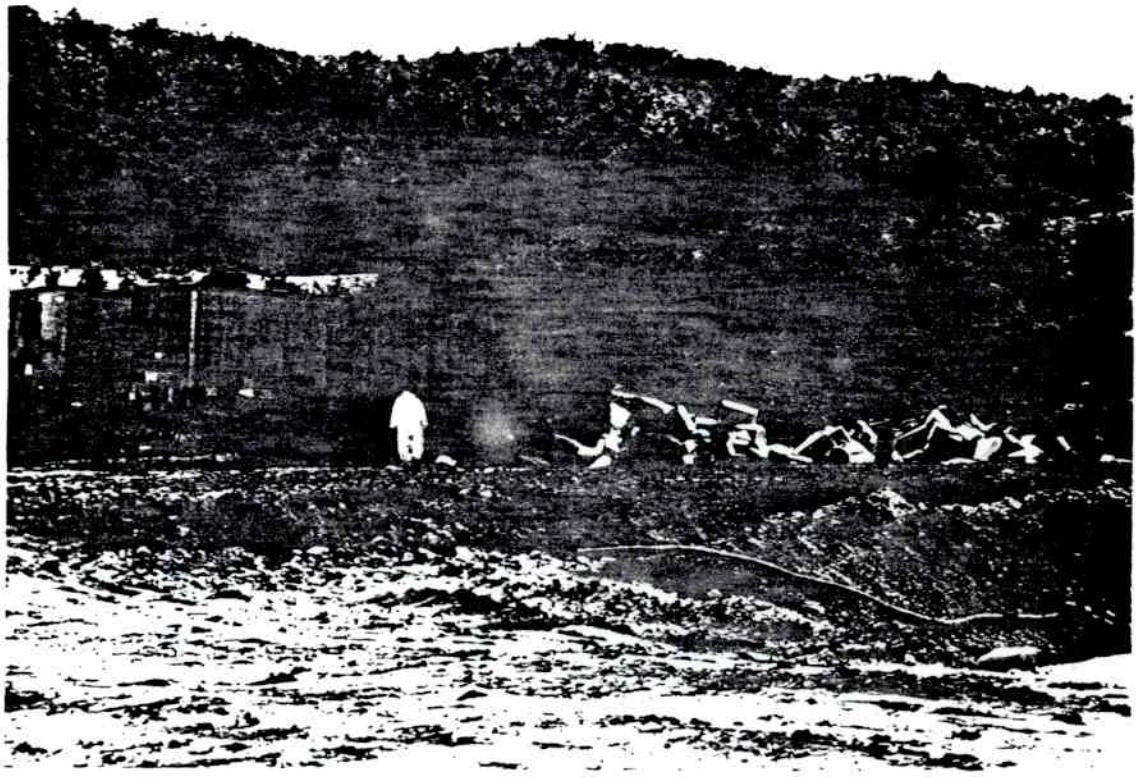

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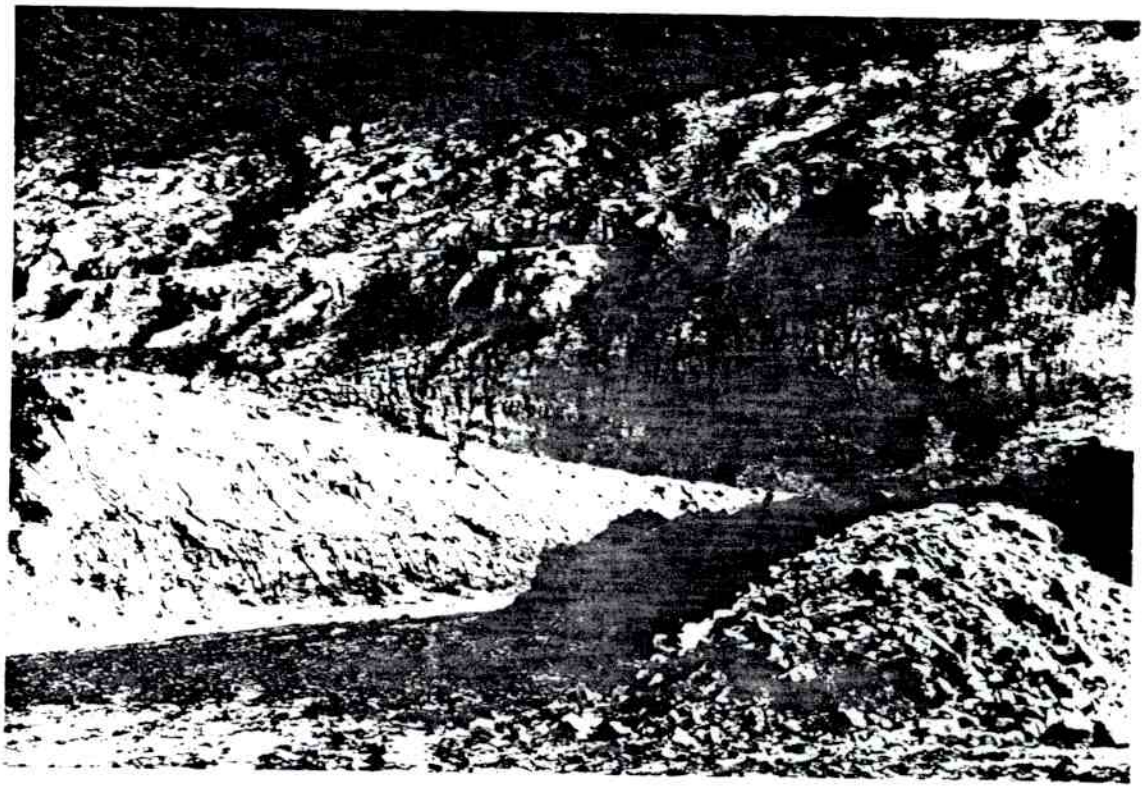

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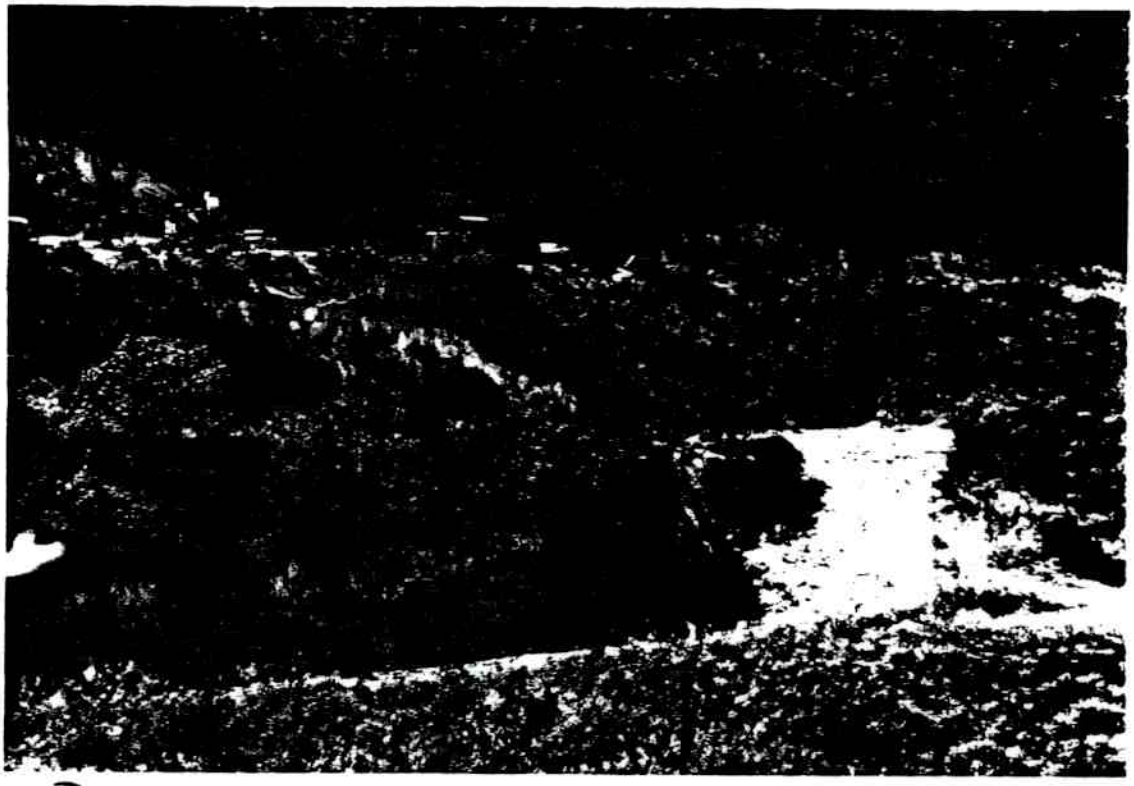

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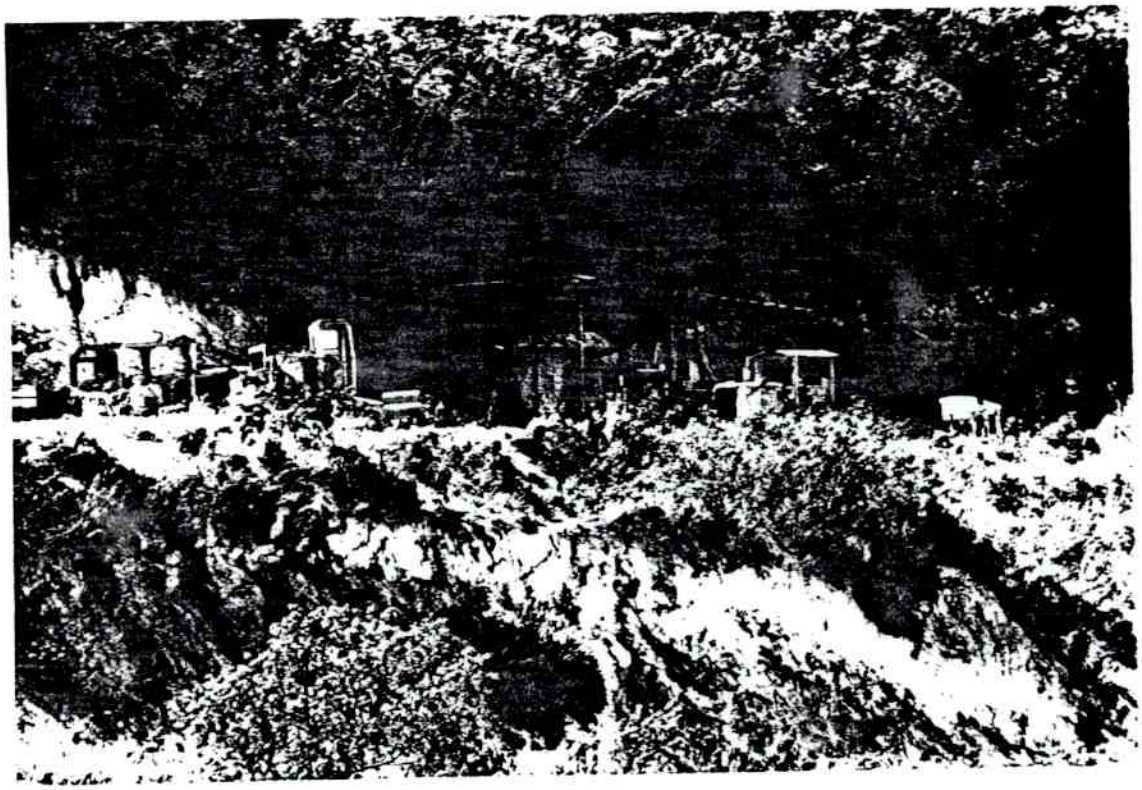

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AREA NEAR UNIT #17

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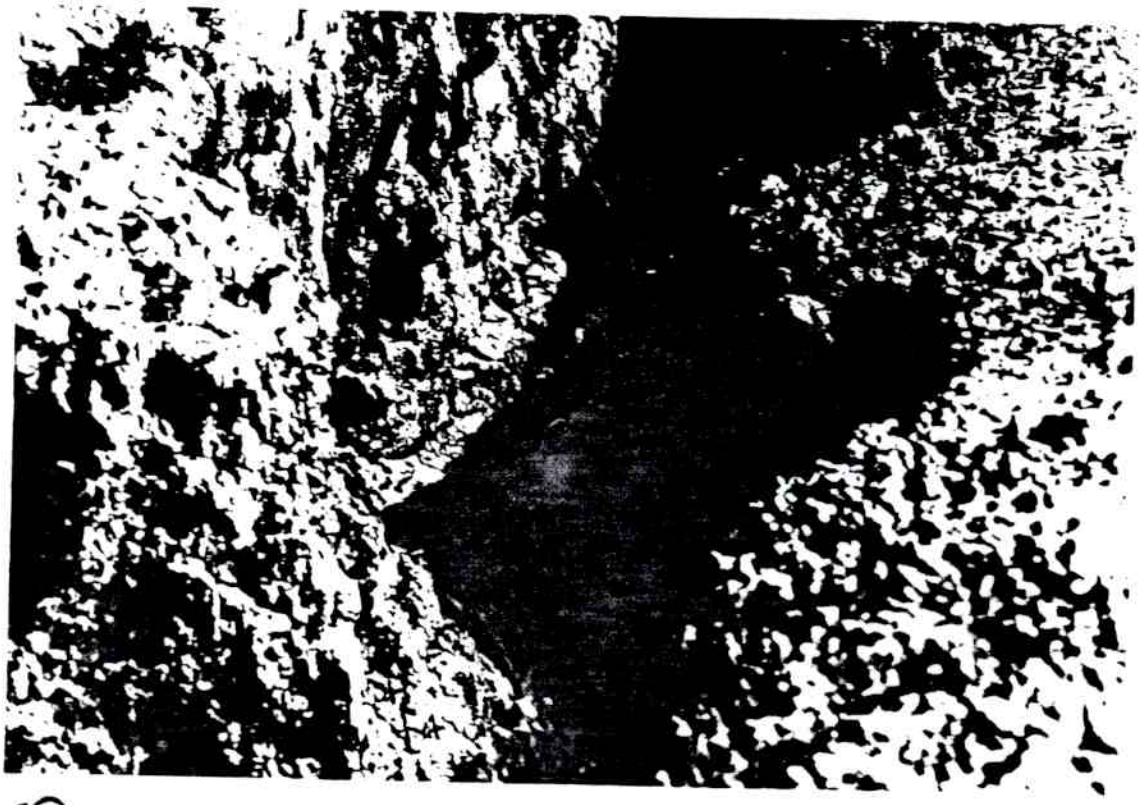

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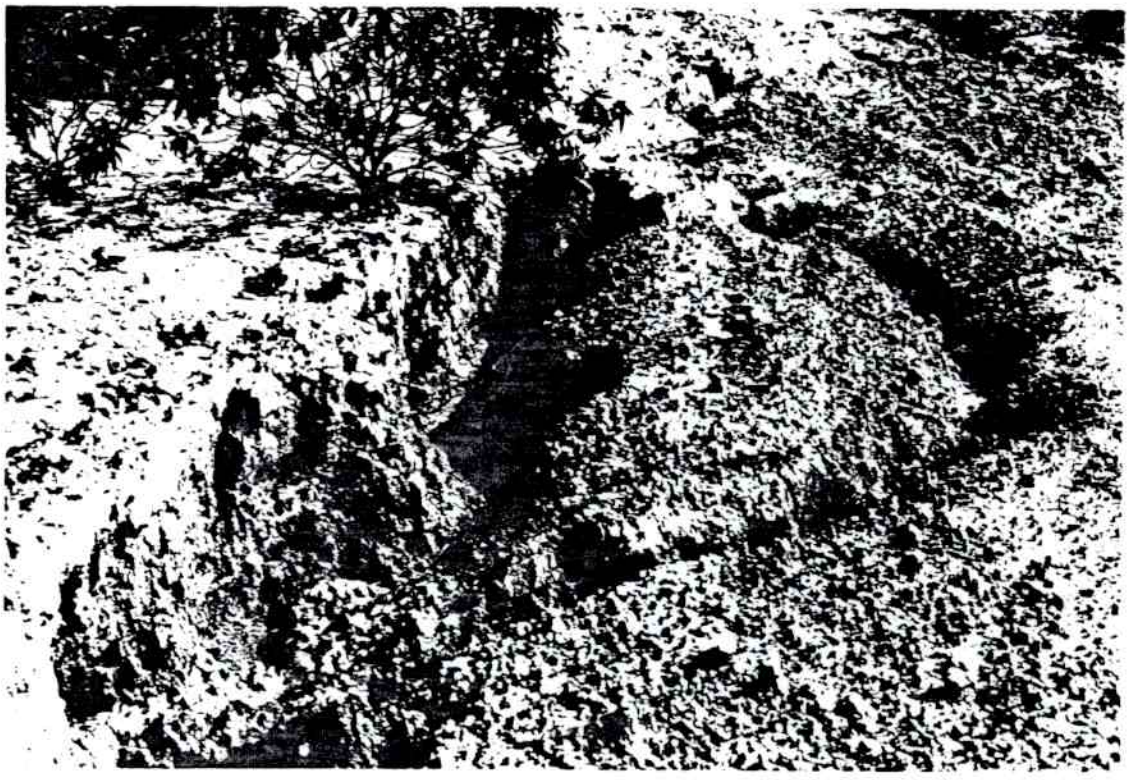

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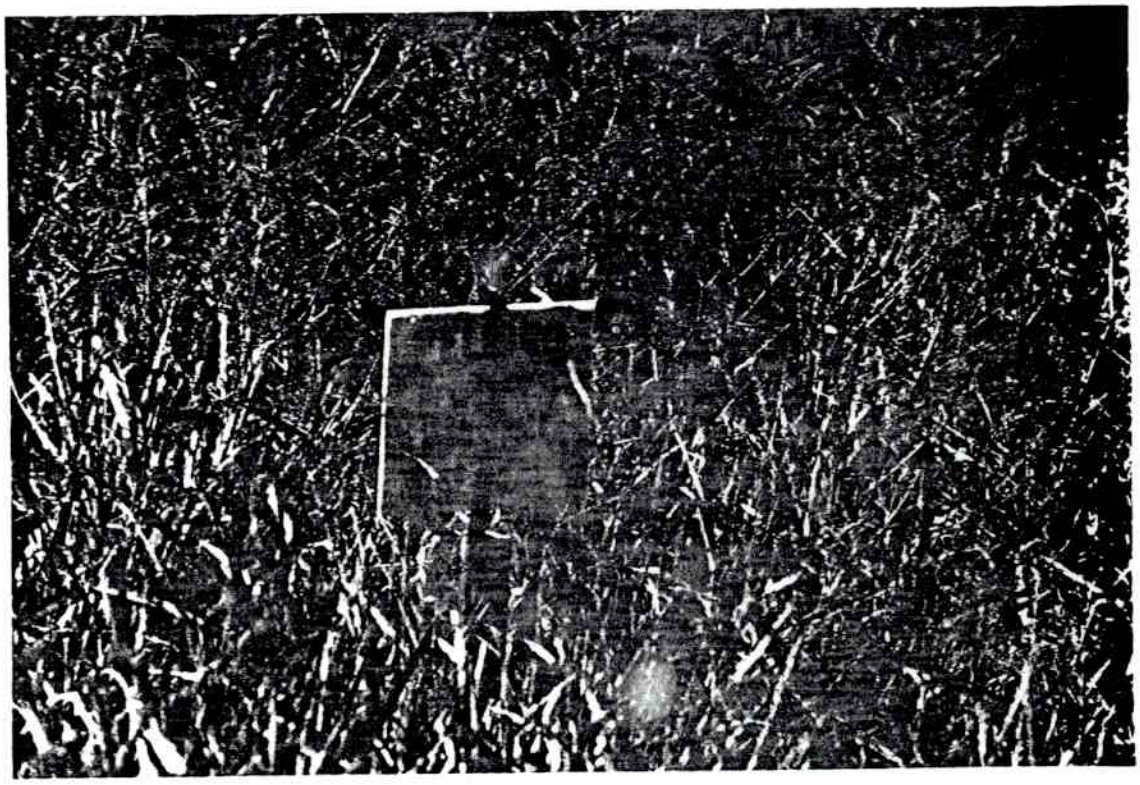

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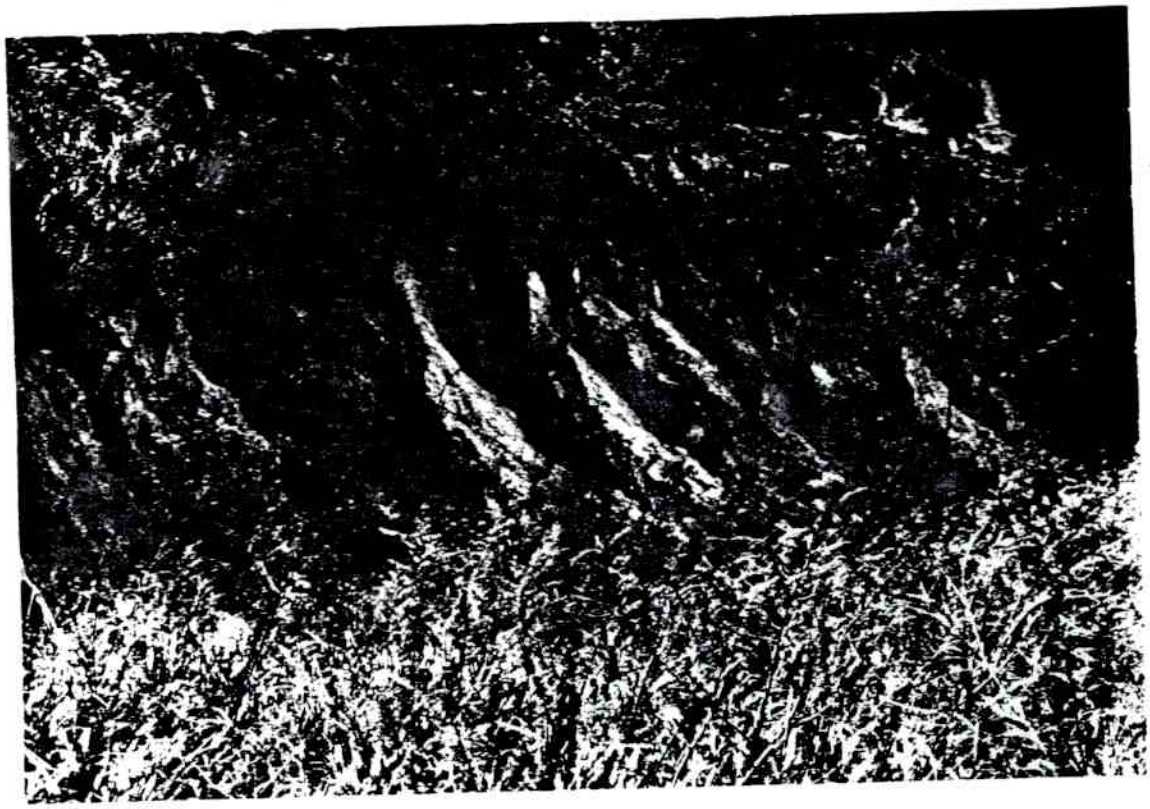

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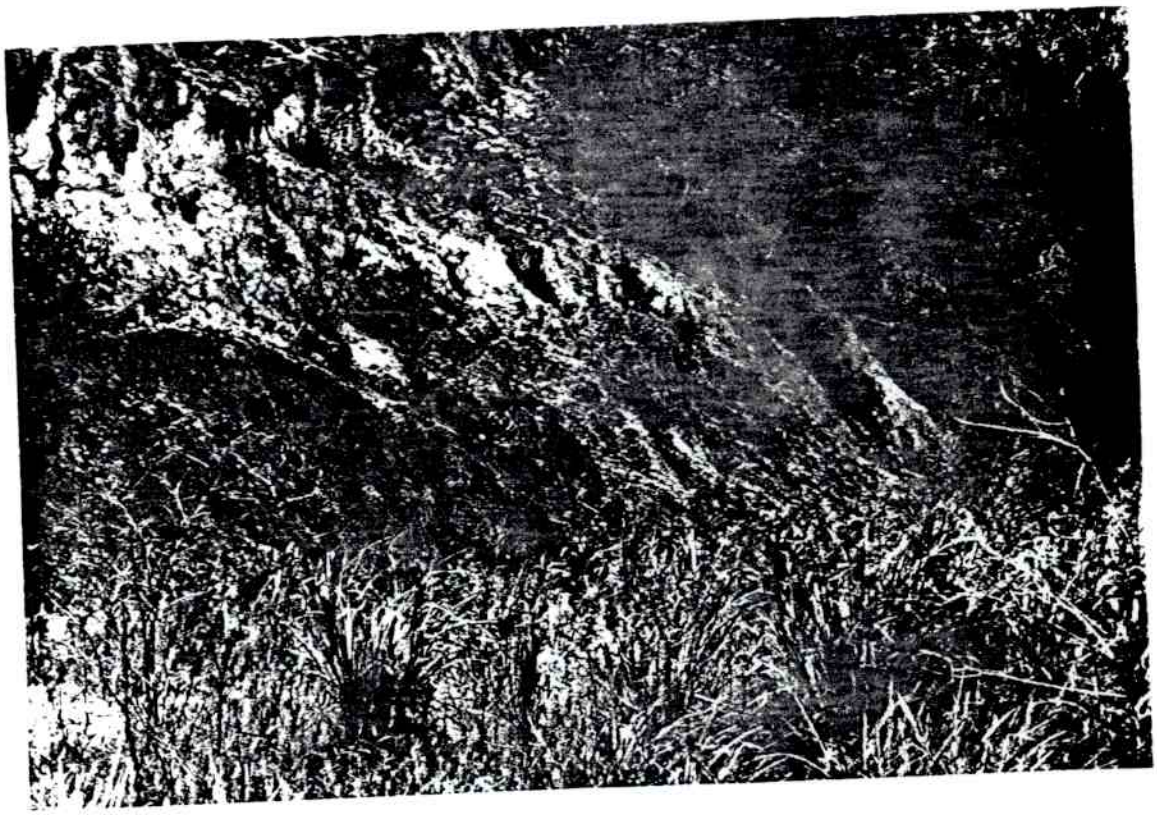

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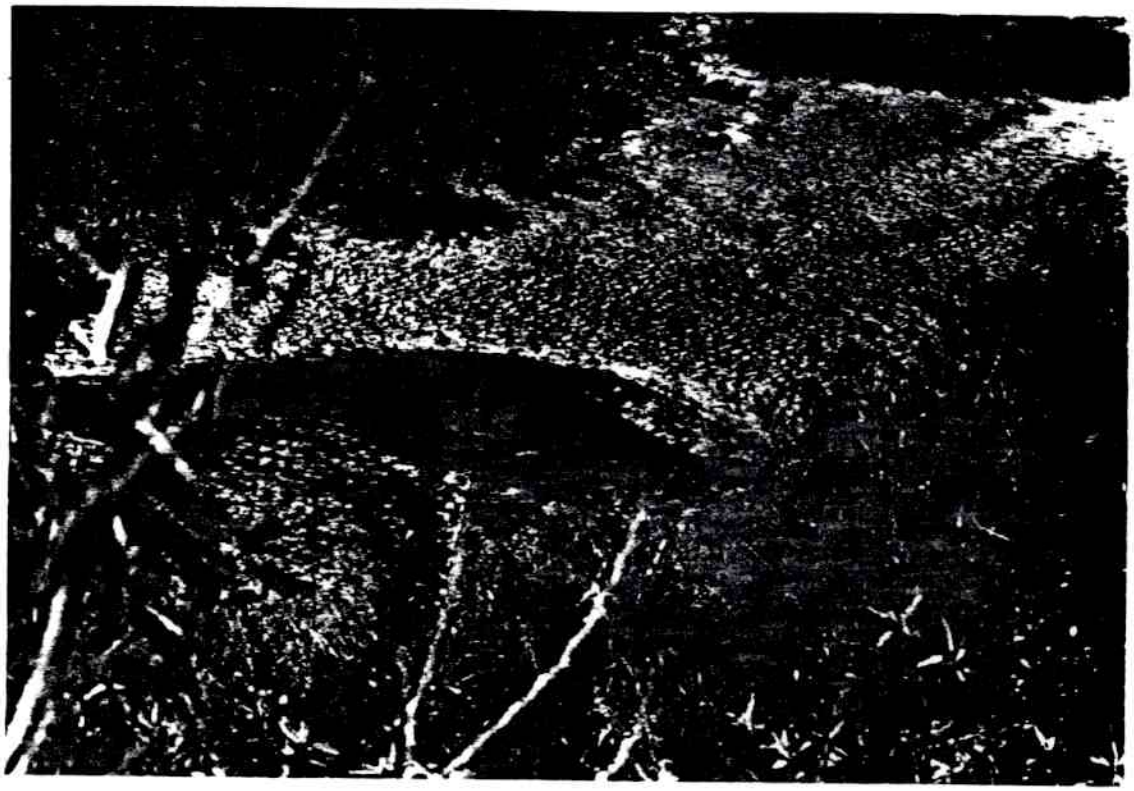
RAINWATER LAGOON



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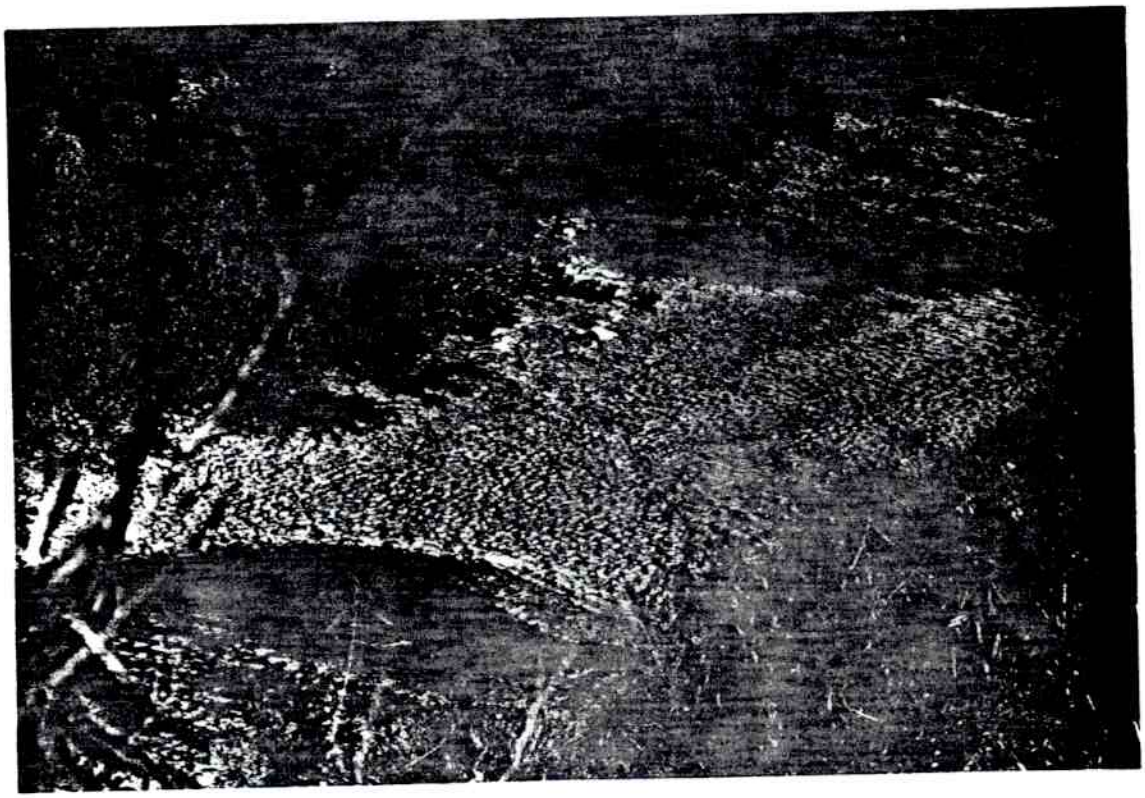

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